

REMARKS

The applicants note with appreciation the acknowledgement of the claim for priority under section 119 and the notice that all of the certified copies of the priority documents have been received.

The applicants acknowledge and appreciate receiving an initialed copy of the form PTO-1449 that was filed on October 17, 2003.

Claims 1, 2, 4 and 5 – 14 are pending. Claim 3 has been canceled. The applicants respectfully request reconsideration and allowance of this application in view of the above amendments and the following remarks.

Claims 2, 4 and 5 have been amended to correct cosmetic defects.

Claims 1 – 2 were rejected under 35 USC 102(e) as being anticipated by U.S. Patent No. 6,810,314, Tashiro et al. (“Tashiro”). Claims 3 – 5 were rejected under 35 USC 103(a) as being unpatentable over Tashiro in view of U.S. Patent No. 6,484,082, Millsap et al. (“Millsap”). Independent claim 1 has been amended to incorporate dependent claim 3. The applicants respectfully request that the rejections be withdrawn for reasons including the following, which are provided by way of example.

As described in the application, the invention recognizes the problem caused by multiple ECUs in a vehicle control system operating independently and determining behavior based on each ECU’s judgment of detected abnormalities (e.g., specification page 4, lines 4 - 6.) Independent claims 1 and 4 recite in combination, for example, an overall control apparatus that “determines said operation directives supplied to said individual control apparatuses based on information obtained ... from said individual control apparatuses,” “executes abnormality detection processing for detecting abnormality occurring in the integrated vehicle control

system,” and “executes gateway processing...” “thereby allowing mutual exchange of information between individual control apparatuses of differently functionalized networks.”

On the other hand, without conceding that Tashiro discloses any feature of the present invention, Tashiro is directed to an integrated control system for a vehicle comprising a plurality of system device control units (ECU) 6, 7, 8 and a manager control ECU 10. The device control ECUs control system devices in a vehicle. The manager control ECU 10 provides the device control ECUs with commands serving as operation directives of the system devices. (See Abstract.) According to Tashiro, if a failure occurs in a system device, one device control ECU can directly issue its own operation directive for carrying out a predetermined operation to handle the failure to a failure system device independently of a control command issued by the manager control ECU 10 (Col. 8, lines 25 – 34).

Millsap is directed to an in-vehicle network management using virtual networks to control activation of ECUs networked together through a vehicle. (See Abstract.) According to Millsap, the ECUs are grouped together, and each group of ECUs is used to carry out a particular control task. When multiple on-board vehicle buses are used in the vehicle, different ECUs involved in carrying out a particular control task are physically located on different buses or networks. Thus, gateways can be used to interface between these different buses, and wake-up signals and virtual network messages can be transferred from one bus to another. As an example, a gateway G1 interfaces between high- and low-speed buses, a gateway G2 interfaces between the high-speed bus and a service tool, a gateway G3 interfaces between the low-speed bus and a third party bus, and a gateway G4 interfaces between the low-speed bus and a remote network (e.g., Col. 12, lines 4 – 41).

The applicants provide herein a selection of some examples of limitations in the claims which are neither taught nor suggested by Tashiro. The final Office Action admits that Tashiro “does not particularly teach that the electronic control apparatus are connected via a plurality of networks.” (Final Office Action, ¶ 6). Recognizing that Tashiro fails to teach and/or suggest the invention as claimed, Millsap is cited to remedy the deficiencies.

Nevertheless, Millsap fails to remedy such deficiencies. For example, in the combination of Tashiro and Millsap, one device control ECU directly issues its own operation directive for carrying out a predetermined operation to handle a failure occurring in a system device to a failure system device independently of a control command issued by the manager control ECU 10. Also, in the combination of Tashiro and Millsap, gateways are used in networks having multiple on-board vehicle buses as ECUs independently located in addition to the ECUs used in carrying out control tasks.

Accordingly, the combination of Tashiro and Millsap fails to teach or suggest several recited elements, such as an overall control apparatus that “determines said operation directives supplied to said individual control apparatuses based on information obtained ... from said individual control apparatuses,” “executes abnormality detection processing for detecting abnormality occurring in the integrated vehicle control system,” and “executes gateway processing...,” “thereby allowing mutual exchange of information between individual control apparatuses of differently functionalized networks.”

Hence, Tashiro and Millsap, alone or in combination, fail to teach or suggest the combination of features recited in independent claim 1, when considered as a whole.

With respect to the rejected dependent claims, applicant respectfully submits that these claims are allowable not only by virtue of their dependency from independent claim 1, but also because of additional features they recite in combination.

New claims 6 – 14 have been added to further define the invention, and are believed to be patentable for reasons including these set out above. Support for the new claims 6 and 11 is located in the specification as filed, for example, page 11, lines 11 – 16; new claims 7 and 12 are supported for example on page 14, lines 8 – 15; new claims 8 and 13 are supported for example on page 13, lines 16 – 20; new claim 9 is supported for example on page 23, lines 6 – 29; and new claims 10 and 14 are supported for example on page 24, lines 16 – 24.

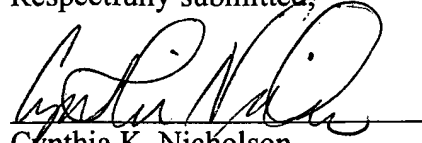
Applicants respectfully submit that, as described above, the cited prior art does not show or suggest the combination of features recited in the claims. Applicants do not concede that the cited prior art shows any elements recited in the claims. However, applicants have provided specific examples of elements in the claims that are clearly not present in the cited prior art.

Applicants strongly emphasize that one reviewing the prosecution history should not interpret any of the examples applicants have described herein in connection with distinguishing over the prior art as limiting to those specific features in isolation. Rather, for the sake of simplicity, applicants have provided examples of why the claims described above are distinguishable over the cited prior art.

In view of the foregoing, the applicants respectfully submit that this application is in condition for allowance. A timely notice to that effect is respectfully requested. If questions relating to patentability remain, the examiner is invited to contact the undersigned by telephone.

Please charge any unforeseen fees that may be due to Deposit Account No. 50-1147.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Cynthia K. Nicholson', written over a horizontal line.

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